CLAIMS

1. A magnetic transfer method for sorting, collecting, transferring or dosing micro-particles (22) or magnetic particles either in the same liquid (23) or from one liquid (23a) into another (23b) by using a magnetic field, according to which method the particles are collected on the surface of a protective cover or coating (21) by means of at least one magnet (13) or equivalent placed inside it and the particles dosed by changing the magnetic field or the intensity of the magnetic field, characterized in that the change in the magnetic field or its intensity is accomplished by means of at least one ferromagnetic body, such as a plate or tube (12), in such manner that at least one magnet (13) and/or at least one body are moved in relation to each other so that, when micro-particles (22) are to be collected, the magnet is partially or completely outside the ferromagnetic body and, when the particles are to be released or dozed, the magnet is partially or completely inside or behind the ferromagnetic body.

2. A method according to claim 1, characterized in that

- the intensity of the magnetic field is adjusted by moving at least one magnet (13) and ferromagnetic tube (12) in relation to each other in such manner
- that the intensity of the magnetic field is reduced by moving the magnet (13) or the tube (12) so that the magnet goes inwards into the tube,
- and that the intensity of the magnetic field is increased by moving the magnet (13) or the tube (12) so that the magnet comes outwards from the tube.

3. A method according to claim 1 or 2, characterized in that the intensity of the magnetic field is reduced by moving the magnet (13) into the ferromagnetic tube (12) or by moving the ferromagnetic tube over the magnet.

4. A method according to claim 1, 2 or 3, characterized in that the intensity of the magnetic field is reduced by moving the ferromagnetic tube (12) over a magnet (13) placed inside a hard cup-like cover (21) or by pushing the tube into the space between an elastic protective coating and the magnet.

5. A micro-particle (22) transfer device (10) for sorting, collecting, transferring or dosing micro-particles or magnetic particles either in the same liquid (23) or from one liquid (23a) into another (23b), said transfer device comprising at least one magnet (13) or equivalent placed inside a cover or protective coating (21), characterized in

- that the transfer device (10) comprises at least one ferromagnetic body, such as a plate or tube (12),
- and that at least one magnet and/or at least one ferromagnetic body, such as a plate or tube (12), are movable in relation to each other so that, when micro-particles are to be collected, the magnet is partially or completely outside the ferromagnetic body and, when the particles are to be released or dozed, the magnet is partially or completely inside or behind the ferromagnetic body.

6. A transfer device (10) according to claim 5, characterized in

- that the transfer device comprises at least one ferromagnetic tube (12) or at least one aperture in a ferromagnetic plate and at least one at least one permanent magnet (13) or electromagnet movable in the tube or aperture,
- and that the tube (12) or aperture is made of/in iron or other material whose magnetic properties prevent the magnetic flux of the magnet (13) from penetrating the tube.

7. A transfer device (10) according to claim 5 or 6, characterized in that the transfer device comprises two or more magnets (13) which are identical or different from each other and which are attached to each other by the magnetic force or by a medium or adapter of ferromagnetic or non-ferromagnetic material.

8. A transfer device (10) according to claim 5, 6 or 7, characterized in

- that the magnet (13) is attached to a rod (11), by means of which the magnet can be moved in the ferromagnetic tube (12),
- and that the rod (11) is ferromagnetic or non-ferromagnetic.

9. A transfer device according to any one of claims 5-8, characterized in

- that the ferromagnetic tube (12) is a round cylinder and the magnet (13) consists of at least one round bar or plug concentric with the tube,
- and that the magnetizing axis of the magnet (13) is oriented in the direction of its longitudinal axis so that the poles of the magnet are at the ends of the bar.

10. A transfer device (10) according to any one of claims 5-8, characterized in

- that the ferromagnetic tube (12) is a round cylinder and the magnet (13) consists of at least one round bar or plug concentric with the tube,
- and that the magnetizing axis of the magnet (13) is oriented in a direction transverse or perpendicular to both the ferromagnetic tube and the longitudinal axis of the bar-like magnet.

11. A transfer device (10) according to any one of claims 5-10, characterized in
- that the protective coating (21) is a cup-like body of non-stretchable material, such as hard plastic or metal,
- and that the protective coating (21) forms an extension of the ferromagnetic tube (12) so that, when pushed out of the tube, the magnet (13) can move inside the protective coating.

12. A transfer device (10) according to any one of claims 5-11, characterized in that the protective coating (21) is made of stretchable and elastic material, such as an elastomeric plastic cover or thin film which is stretched when the magnet (13) is being pushed out of the ferromagnetic tube (12).

13. A reactor unit (60) for micro-particles (22), characterized in that the reactor unit (60) comprises a magnet unit (10) collecting micro-particles (22) and a reaction chamber (61), inside which the magnet unit can be fitted.